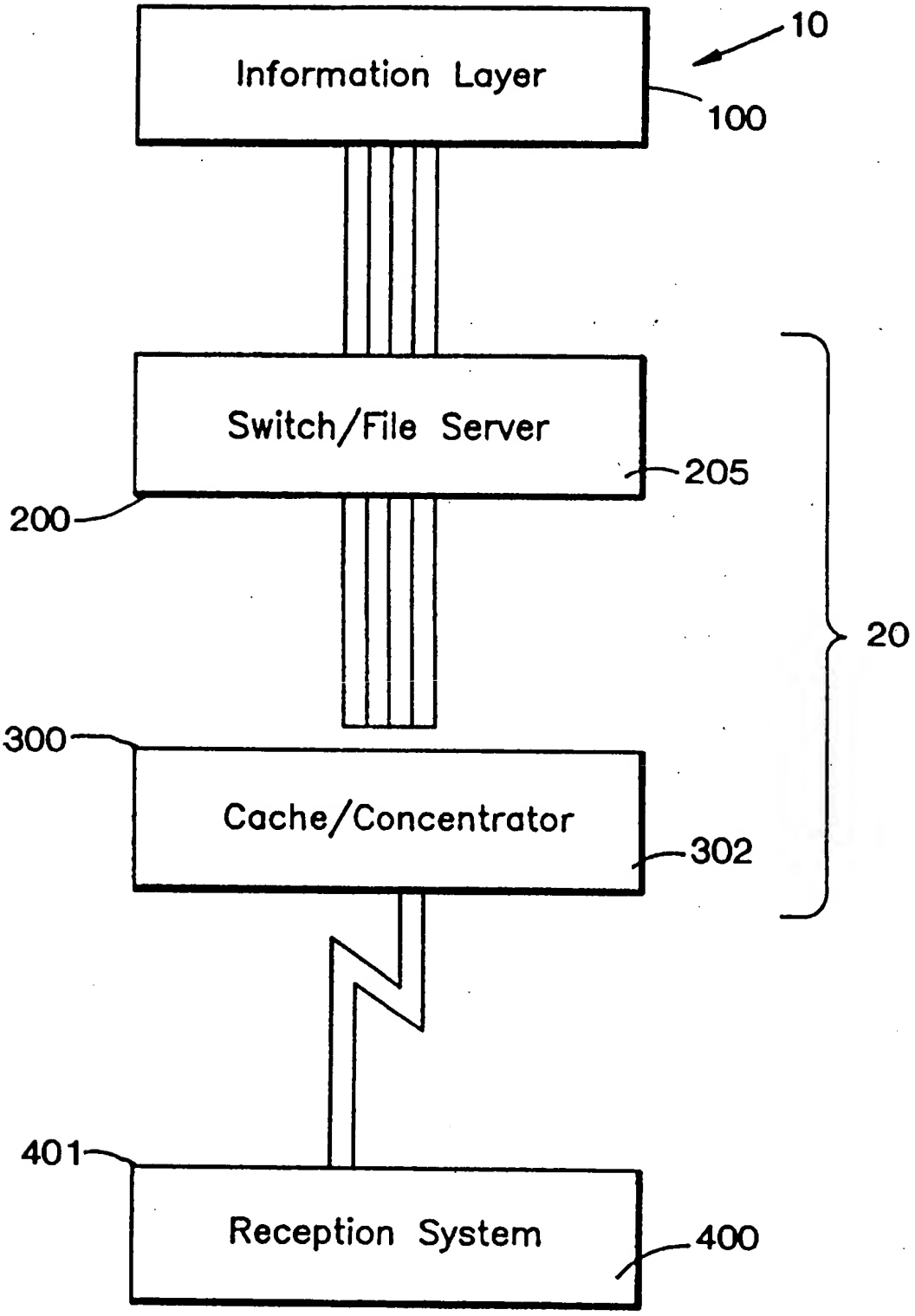
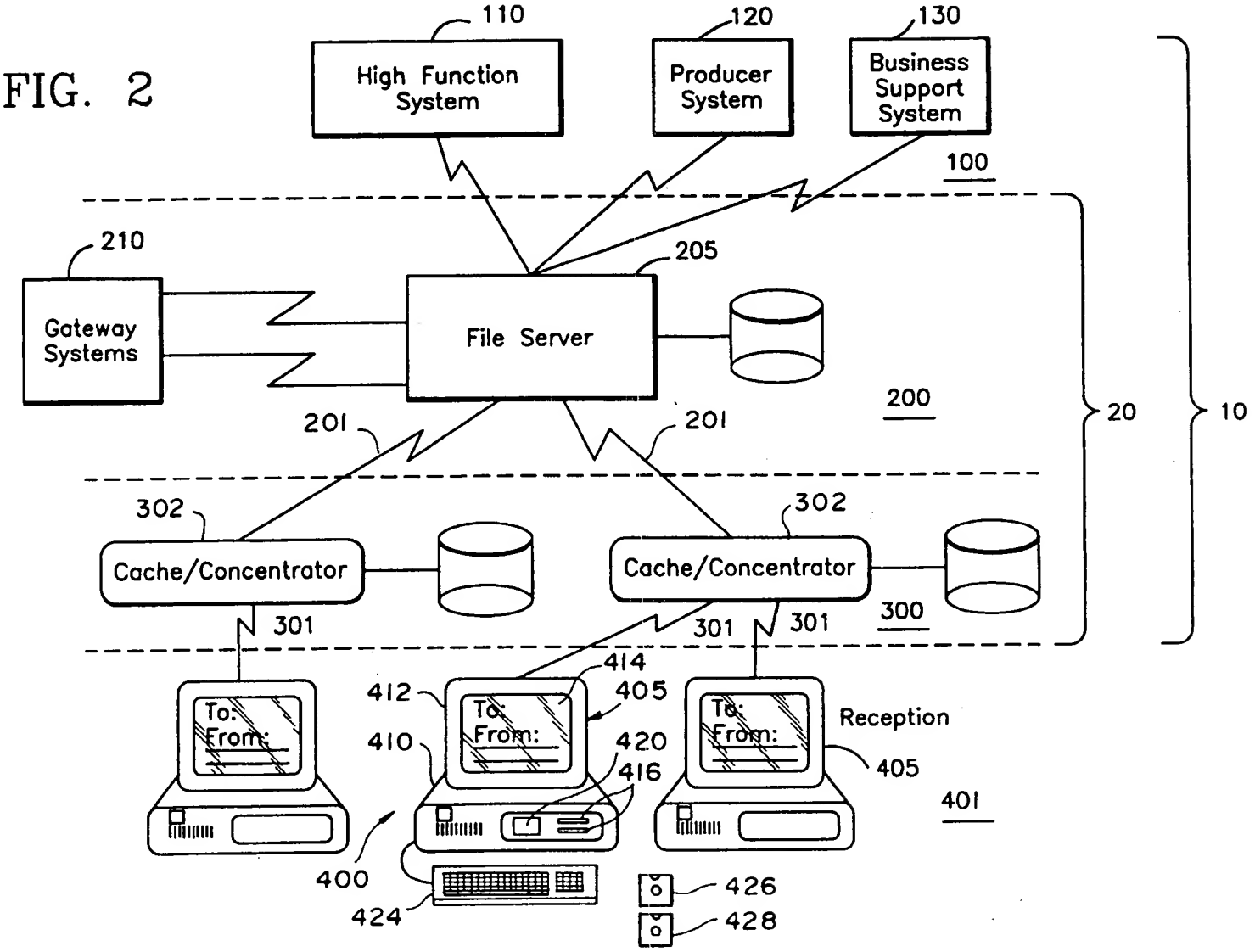

Information Layer
10
100
Switch/File Server
205
200
20
300
Cache/Concentrator
302
401
Reception System
400

FIG. 1

FIG. 2


110
High Function System
120
Producer System
130
Business Support System
100
210
Gateway Systems
205
File Server
200
201
201
20
10
302
Cache/Concentrator
302
Cache/Concentrator
301
301
301
300
414
412
405
410
420
416
To: From:
To: From:
To: From:
Reception
405
401
400
424
426
428

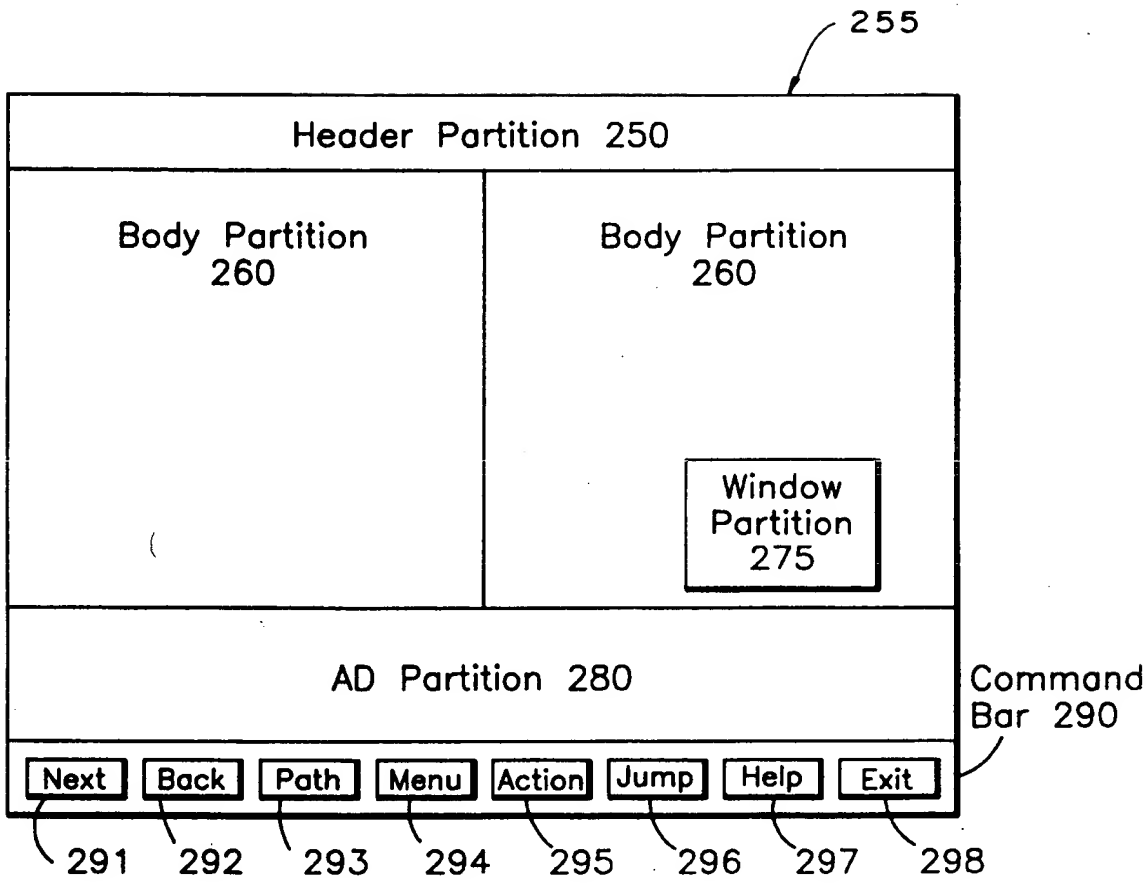
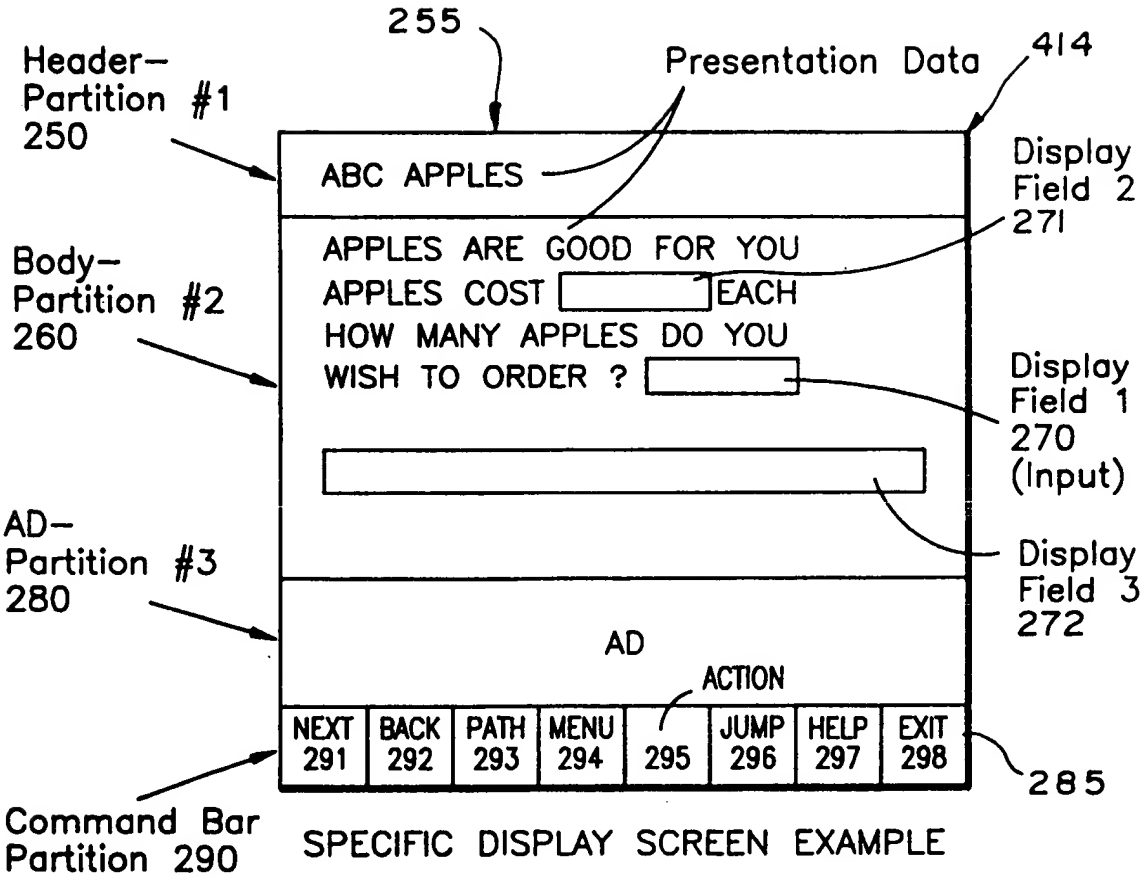

255
Header Partition 250
Body Partition 260
Body Partition 260
Window Partition 275
AD Partition 280
Command Bar 290
Next
Back
Path
Menu
Action
Jump
Help
Exit
291
292
293
294
295
296
297
298

FIG. 3a



SPECIFIC DISPLAY SCREEN EXAMPLE

FIG. 3b

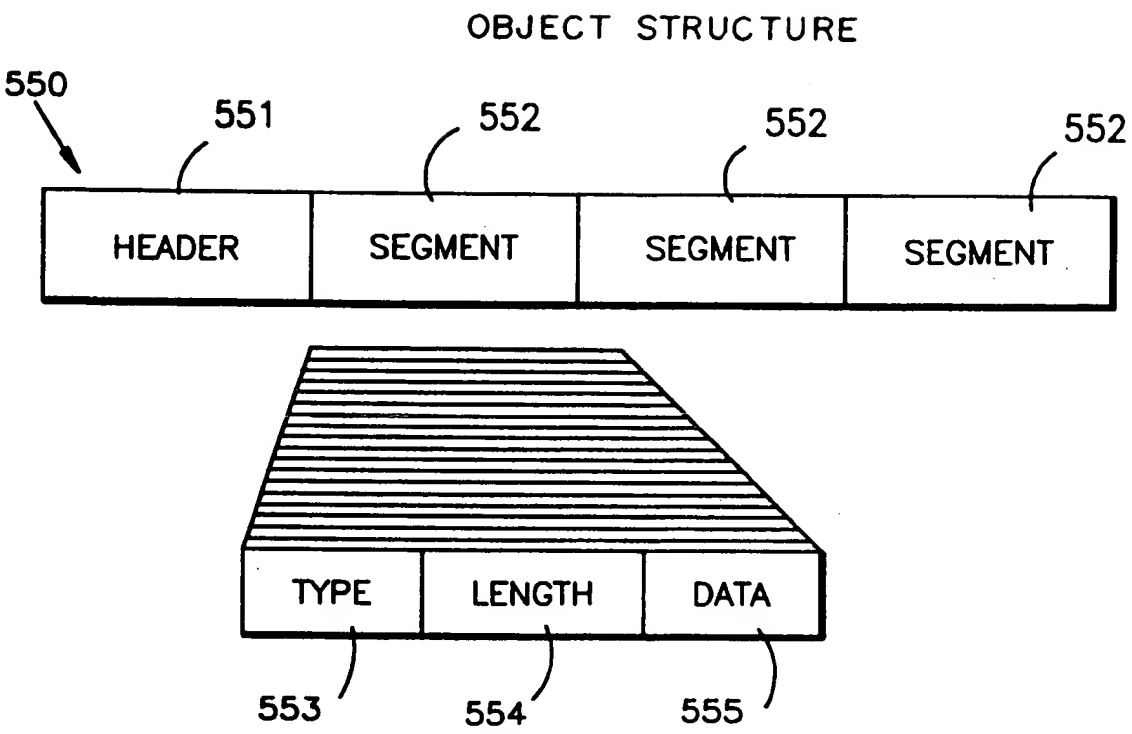

OBJECT STRUCTURE
550
551
552
552
552
HEADER
SEGMENT
SEGMENT
SEGMENT
TYPE
LENGTH
DATA
553
554
555

FIG. 4a

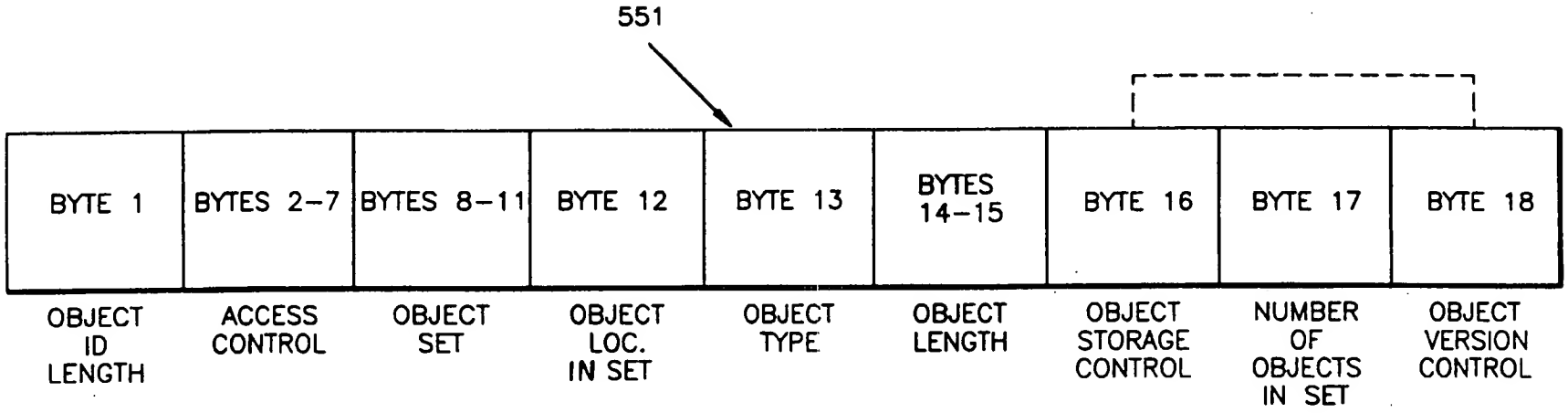
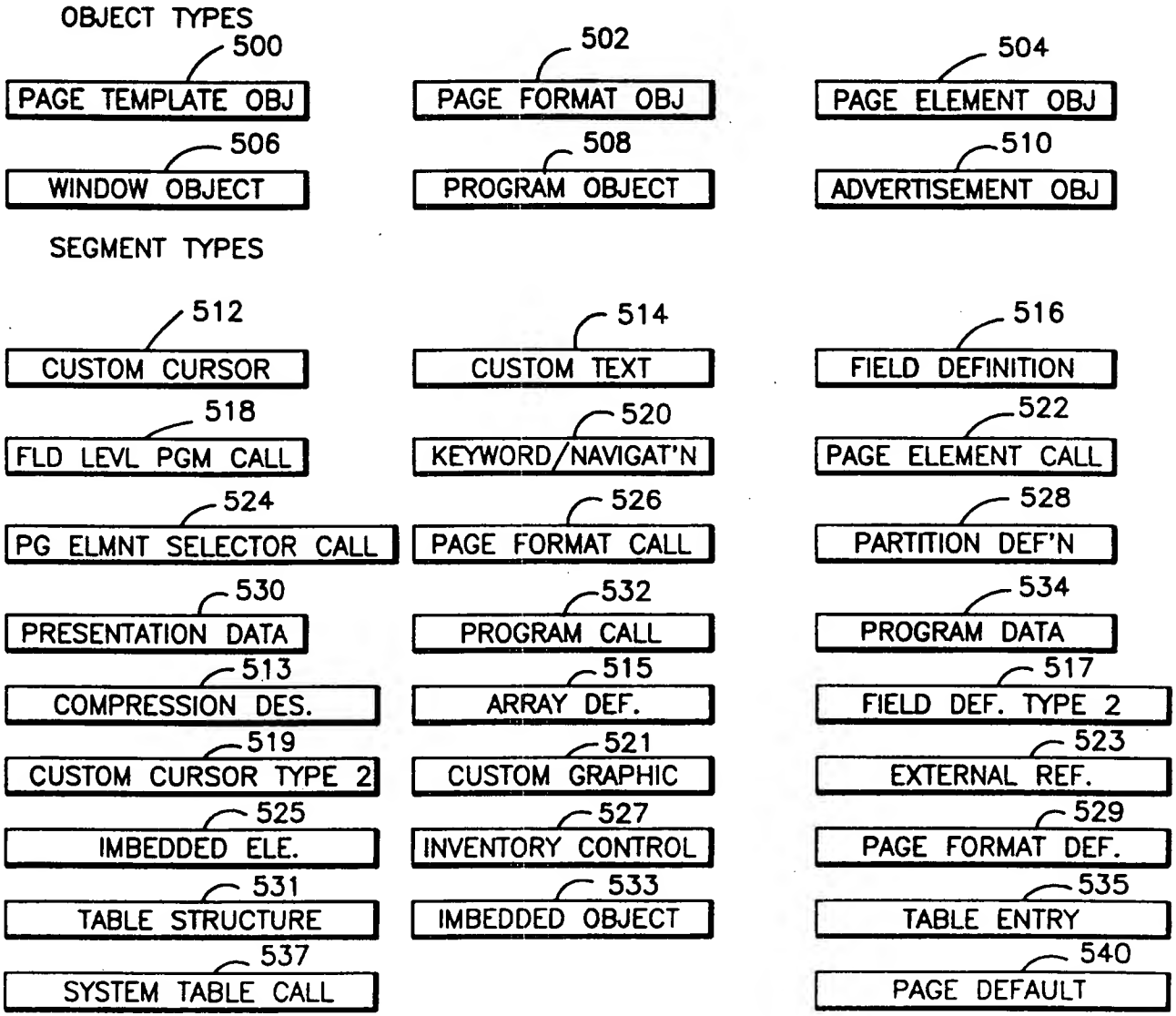

551
BYTE 1
BYTES 2–7
BYTES 8–11
BYTE 12
BYTE 13
BYTES 14–15
BYTE 16
BYTE 17
BYTE 18
OBJECT ID LENGTH
ACCESS CONTROL
OBJECT SET
OBJECT LOC. IN SET
OBJECT TYPE
OBJECT LENGTH
OBJECT STORAGE CONTROL
NUMBER OF OBJECTS IN SET
OBJECT VERSION CONTROL

FIG. 4b

FIG. 4c


OBJECT TYPES
500
PAGE TEMPLATE OBJ
502
PAGE FORMAT OBJ
504
PAGE ELEMENT OBJ
506
WINDOW OBJECT
508
PROGRAM OBJECT
510
ADVERTISEMENT OBJ
SEGMENT TYPES
512
CUSTOM CURSOR
514
CUSTOM TEXT
516
FIELD DEFINITION
518
FLD LEVL PGM CALL
520
KEYWORD/NAVIGAT'N
522
PAGE ELEMENT CALL
524
PG ELMNT SELECTOR CALL
526
PAGE FORMAT CALL
528
PARTITION DEF'N
530
PRESENTATION DATA
532
PROGRAM CALL
534
PROGRAM DATA
513
COMPRESSION DES.
515
ARRAY DEF.
517
FIELD DEF. TYPE 2
519
CUSTOM CURSOR TYPE 2
521
CUSTOM GRAPHIC
523
EXTERNAL REF.
525
IMBEDDED ELE.
527
INVENTORY CONTROL
529
PAGE FORMAT DEF.
531
TABLE STRUCTURE
533
IMBEDDED OBJECT
535
TABLE ENTRY
537
SYSTEM TABLE CALL
540
PAGE DEFAULT

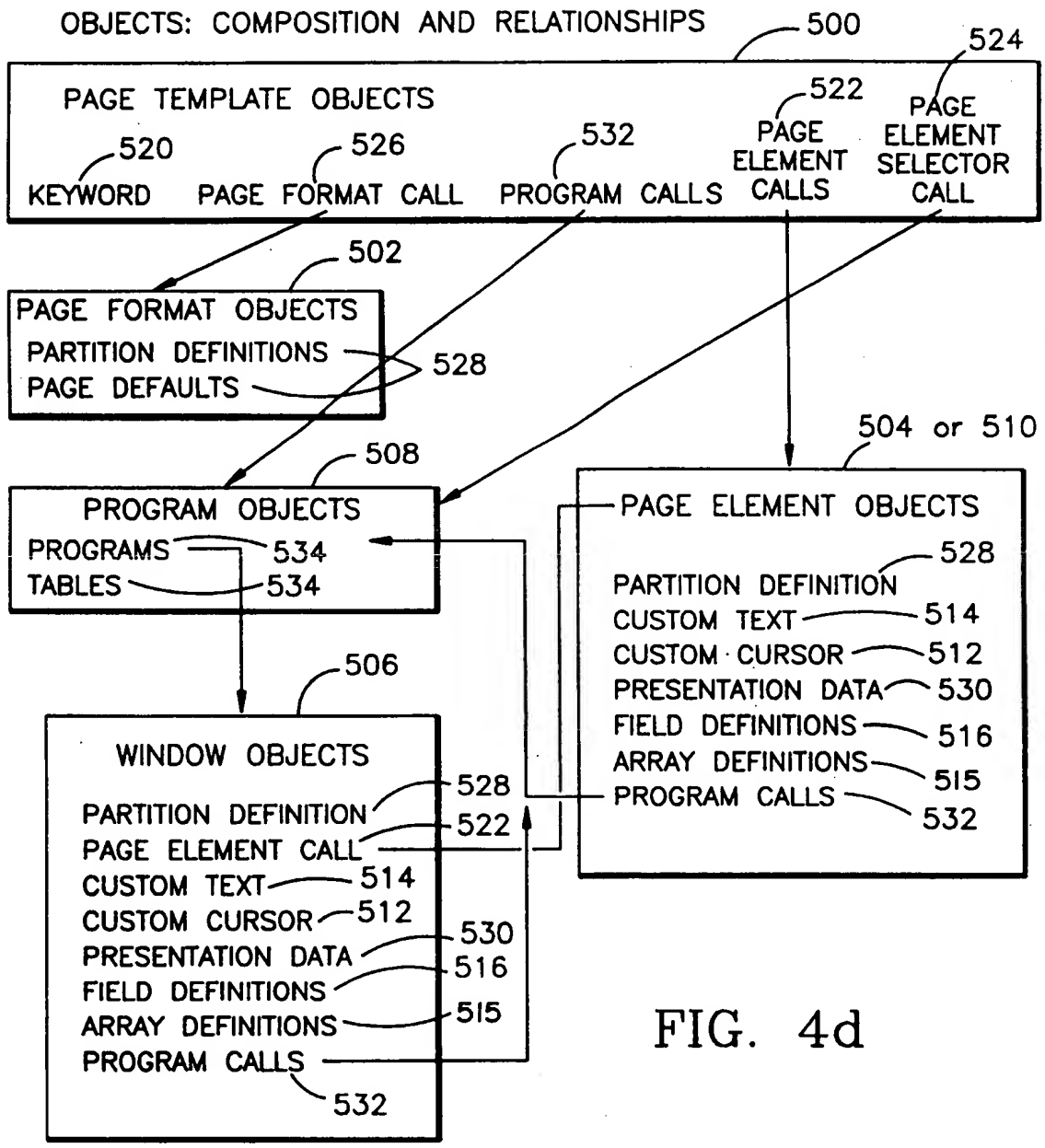

OBJECTS: COMPOSITION AND RELATIONSHIPS
500
PAGE TEMPLATE OBJECTS
524
522
520
526
532
KEYWORD
PAGE FORMAT CALL
PROGRAM CALLS
PAGE ELEMENT CALLS
PAGE ELEMENT SELECTOR CALL
502
PAGE FORMAT OBJECTS
PARTITION DEFINITIONS
PAGE DEFAULTS
528
504 or 510
508
PROGRAM OBJECTS
PROGRAMS
534
TABLES
534
PAGE ELEMENT OBJECTS
528
PARTITION DEFINITION
CUSTOM TEXT
514
CUSTOM CURSOR
512
PRESENTATION DATA
530
FIELD DEFINITIONS
516
ARRAY DEFINITIONS
515
PROGRAM CALLS
532
506
WINDOW OBJECTS
528
PARTITION DEFINITION
522
PAGE ELEMENT CALL
CUSTOM TEXT
514
CUSTOM CURSOR
512
530
PRESENTATION DATA
516
FIELD DEFINITIONS
515
ARRAY DEFINITIONS
PROGRAM CALLS
532

FIG. 4d

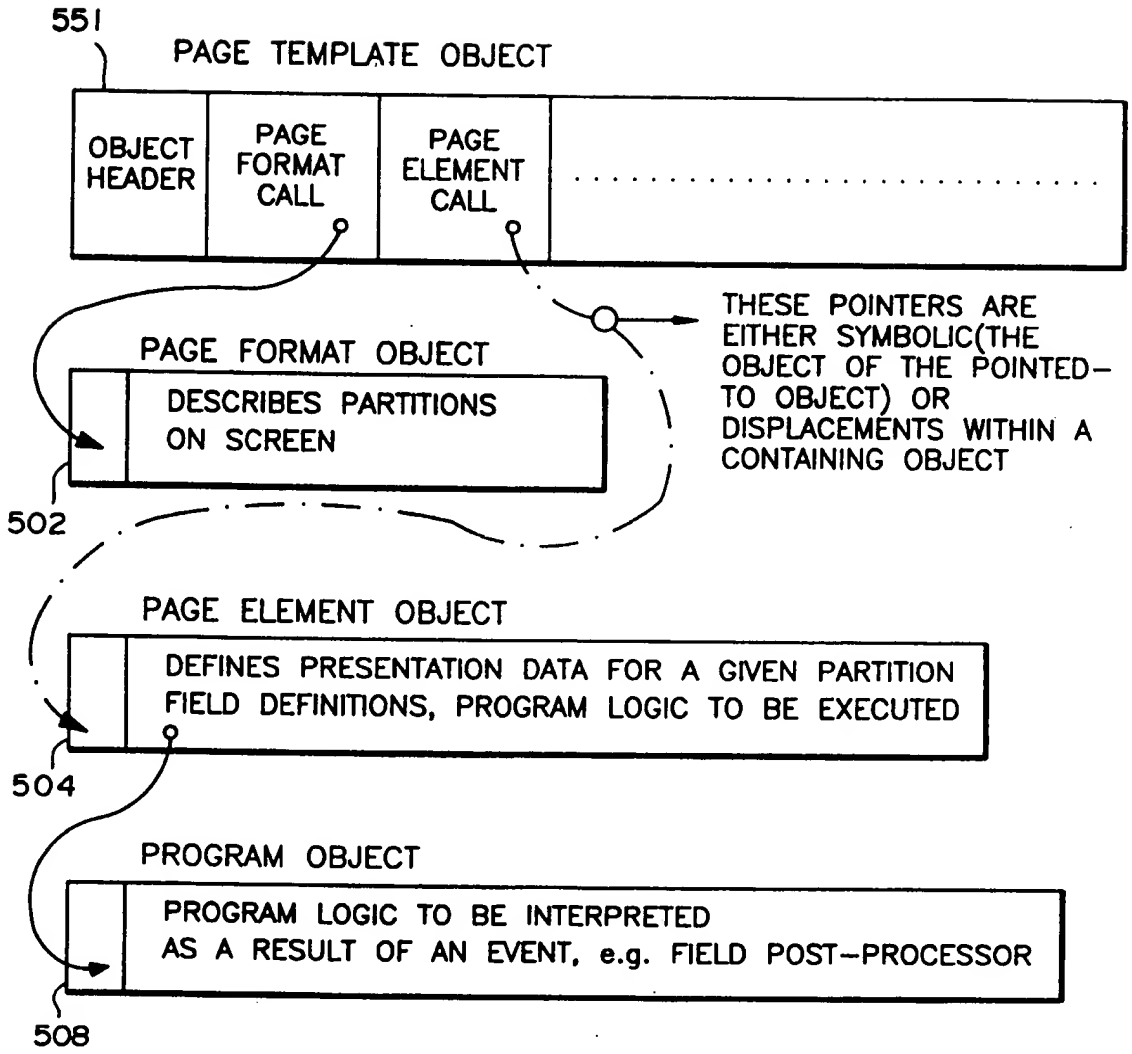

551
PAGE TEMPLATE OBJECT
OBJECT HEADER
PAGE FORMAT CALL
PAGE ELEMENT CALL
THESE POINTERS ARE EITHER SYMBOLIC(THE OBJECT OF THE POINTED-TO OBJECT) OR DISPLACEMENTS WITHIN A CONTAINING OBJECT
PAGE FORMAT OBJECT
DESCRIBES PARTITIONS ON SCREEN
502
PAGE ELEMENT OBJECT
DEFINES PRESENTATION DATA FOR A GIVEN PARTITION FIELD DEFINITIONS, PROGRAM LOGIC TO BE EXECUTED
504
PROGRAM OBJECT
PROGRAM LOGIC TO BE INTERPRETED AS A RESULT OF AN EVENT, e.g. FIELD POST-PROCESSOR
508

FIG. 5a

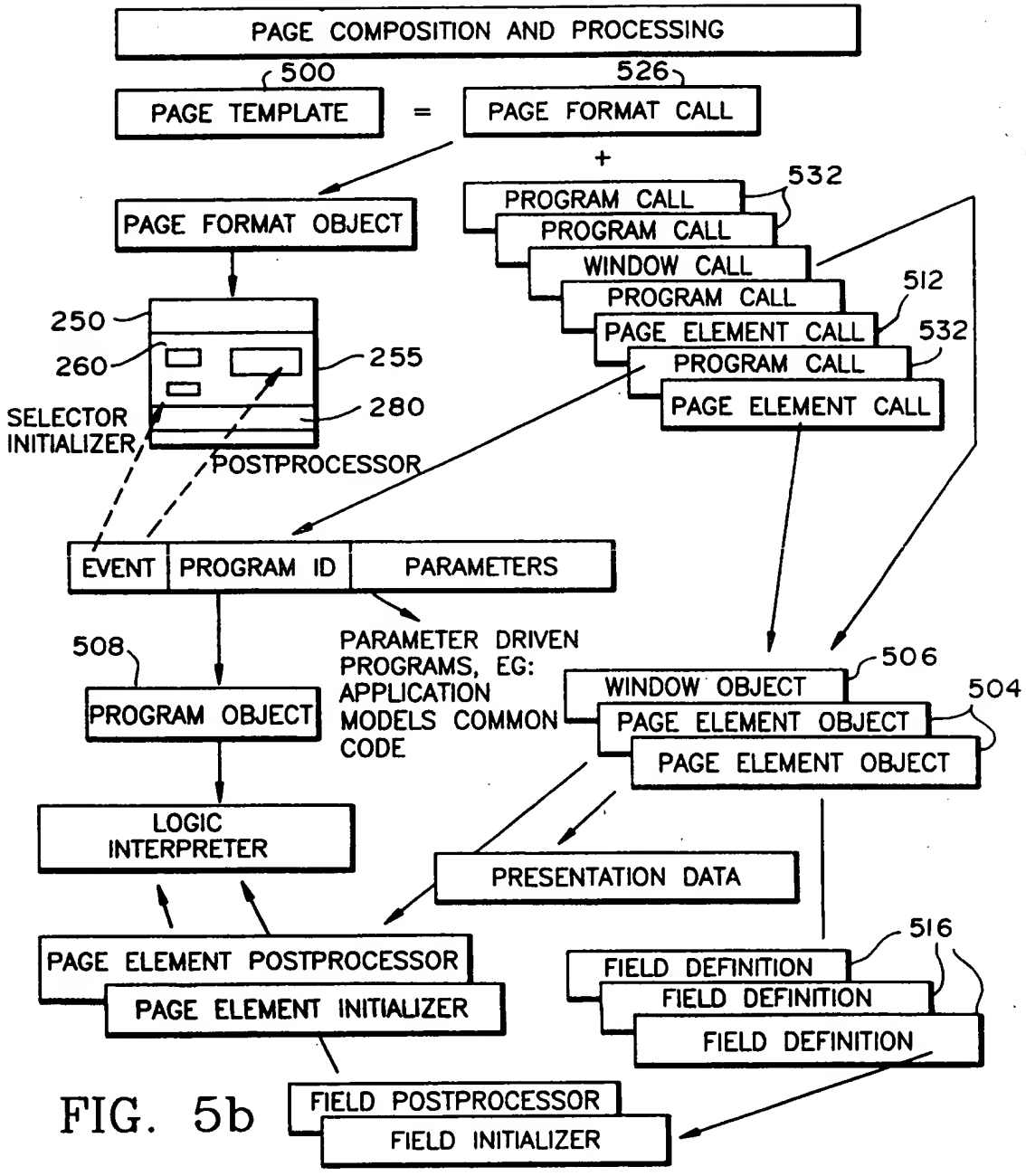
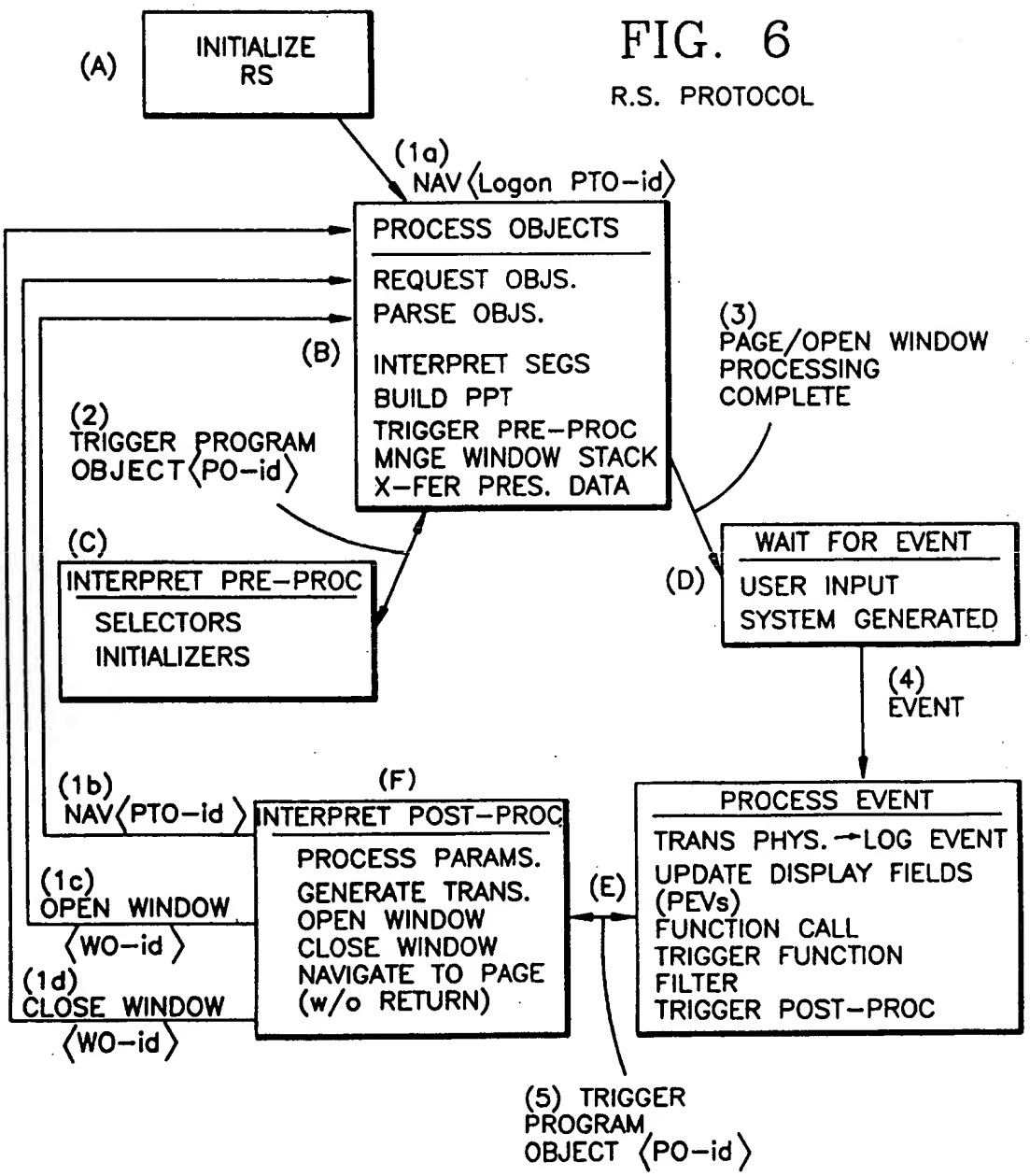
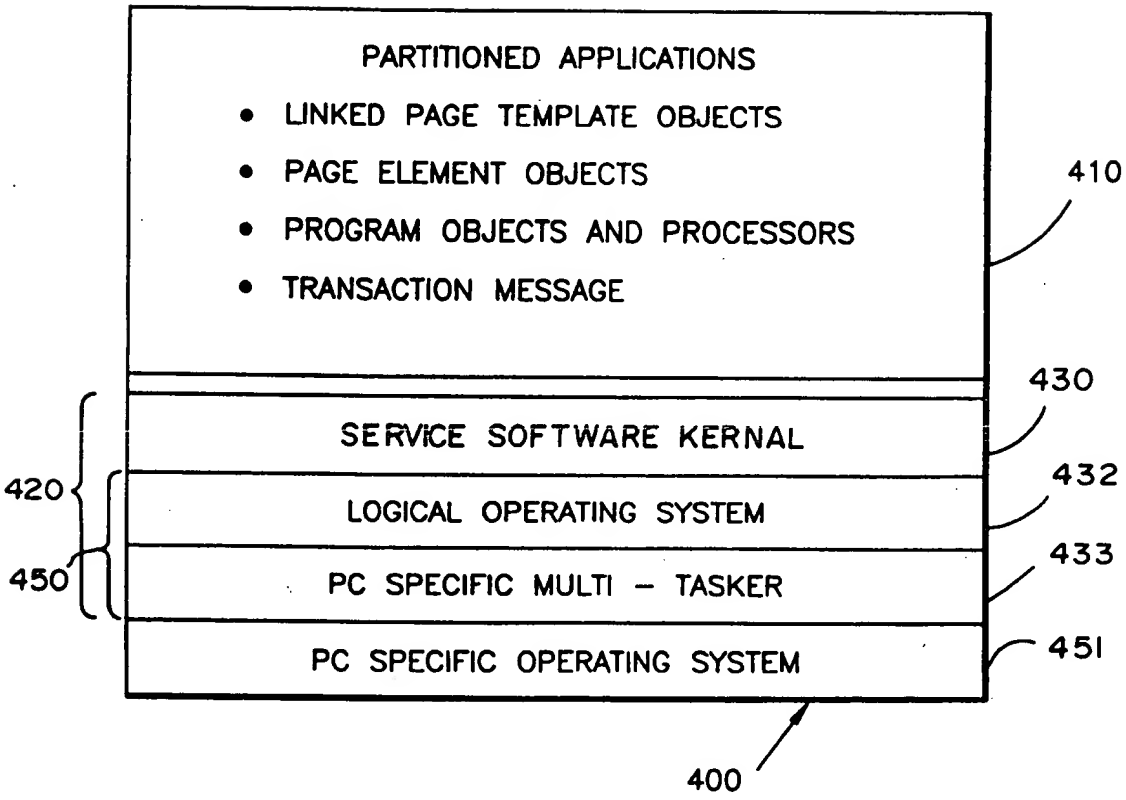

PAGE COMPOSITION AND PROCESSING
500
526
PAGE TEMPLATE
=
PAGE FORMAT CALL
+
PAGE FORMAT OBJECT
PROGRAM CALL
532
PROGRAM CALL
WINDOW CALL
PROGRAM CALL
512
PAGE ELEMENT CALL
532
PROGRAM CALL
PAGE ELEMENT CALL
250
260
255
280
SELECTOR INITIALIZER
POSTPROCESSOR
EVENT
PROGRAM ID
PARAMETERS
508
PARAMETER DRIVEN PROGRAMS, EG: APPLICATION MODELS COMMON CODE
506
WINDOW OBJECT
504
PAGE ELEMENT OBJECT
PAGE ELEMENT OBJECT
PROGRAM OBJECT
LOGIC INTERPRETER
PRESENTATION DATA
516
PAGE ELEMENT POSTPROCESSOR
PAGE ELEMENT INITIALIZER
FIELD DEFINITION
FIELD DEFINITION
FIELD DEFINITION
FIELD POSTPROCESSOR
FIELD INITIALIZER

FIG. 5b

FIG. 6

R.S. PROTOCOL





RECEPTION SYSTEM LAYERS

FIG. 7

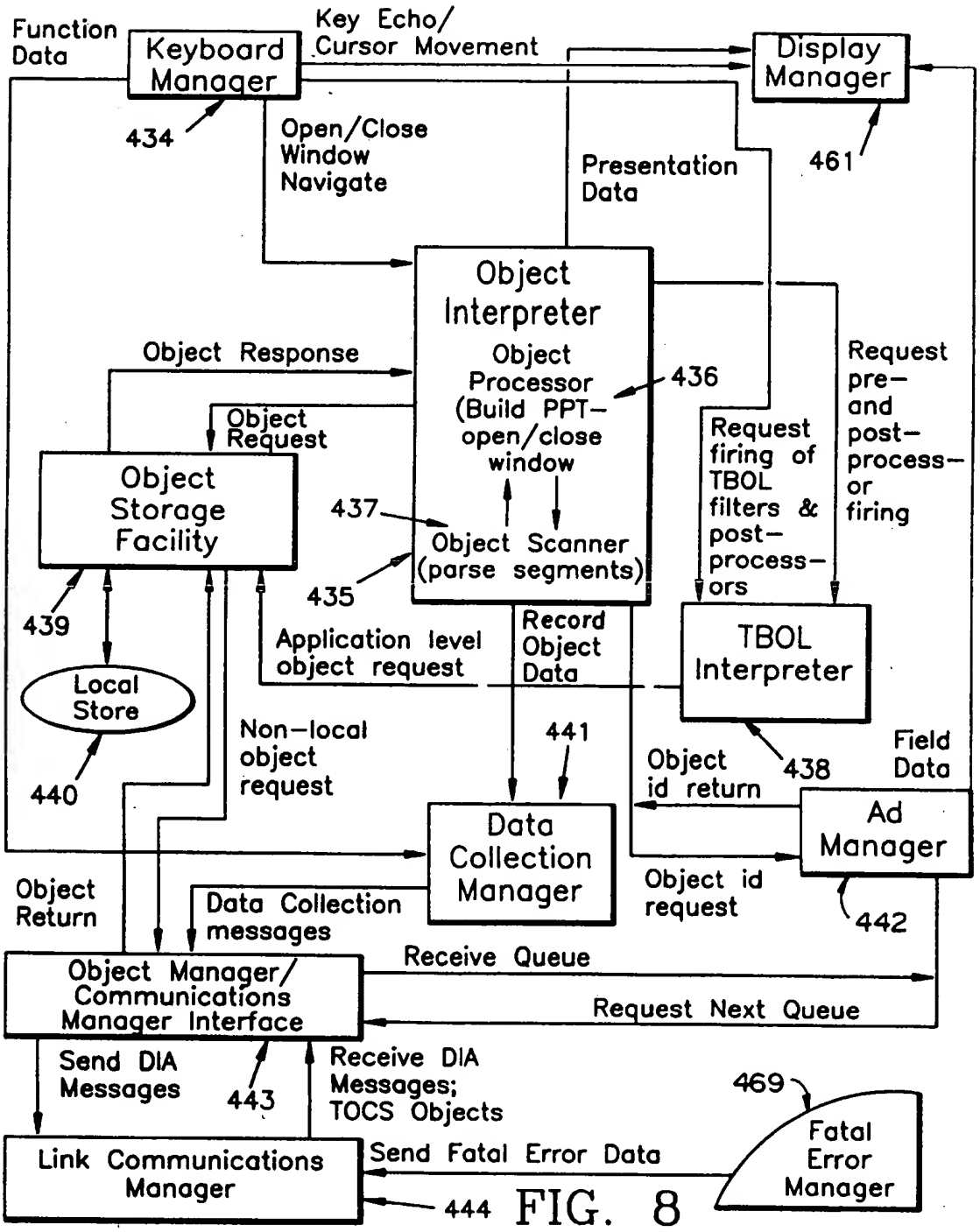

Function Data
Keyboard Manager
Key Echo/ Cursor Movement
Display Manager
434
Open/Close Window Navigate
Presentation Data
461
Object Interpreter
Object Processor (Build PPT- open/close window
436
Object Response
Object Request
Request pre- and post- process- or firing
Request firing of TBOL filters & post- process- ors
Object Storage Facility
437
Object Scanner (parse segments)
435
439
Application level object request
Record Object Data
TBOL Interpreter
Local Store
440
Non-local object request
441
Object id return
438
Field Data
Ad Manager
Data Collection Manager
Object Return
Data Collection messages
Object id request
442
Receive Queue
Object Manager/ Communications Manager Interface
Request Next Queue
Send DIA Messages
443
Receive DIA Messages; TOCS Objects
469
Fatal Error Manager
Send Fatal Error Data
Link Communications Manager
444

FIG. 8

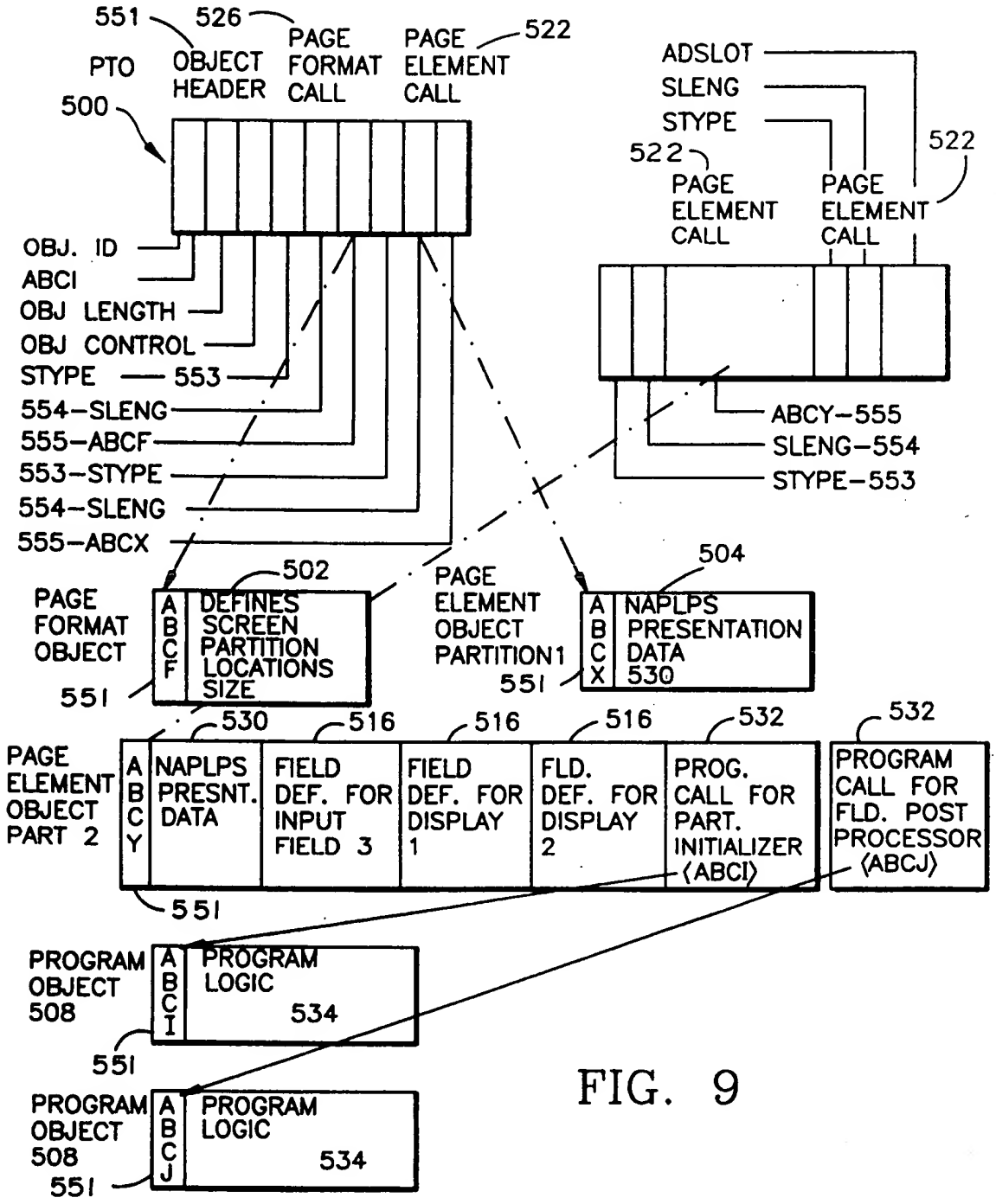

551
526
PAGE FORMAT CALL
PAGE ELEMENT CALL
522
PTO
OBJECT HEADER
500
ADSLOT
SLENG
STYPE
522
PAGE ELEMENT CALL
PAGE ELEMENT CALL
522
OBJ. ID
ABCI
OBJ LENGTH
OBJ CONTROL
STYPE — 553
554–SLENG
555–ABCF
553–STYPE
554–SLENG
555–ABCX
ABCY–555
SLENG–554
STYPE–553
PAGE FORMAT OBJECT
502
A B C F
DEFINES SCREEN PARTITION LOCATIONS SIZE
551
PAGE ELEMENT OBJECT PARTITION1
504
A B C X
NAPLPS PRESENTATION DATA 530
551
PAGE ELEMENT OBJECT PART 2
A B C Y
530
NAPLPS PRESNT. DATA
516
FIELD DEF. FOR INPUT FIELD 3
516
FIELD DEF. FOR DISPLAY 1
516
FLD. DEF. FOR DISPLAY 2
532
PROG. CALL FOR PART. INITIALIZER (ABCI)
532
PROGRAM CALL FOR FLD. POST PROCESSOR (ABCJ)
551
PROGRAM OBJECT 508
A B C I
PROGRAM LOGIC 534
551
PROGRAM OBJECT 508
A B C J
PROGRAM LOGIC 534
551

FIG. 9

FIG. 10

PAGE PROCESSING TABLE (ppt)

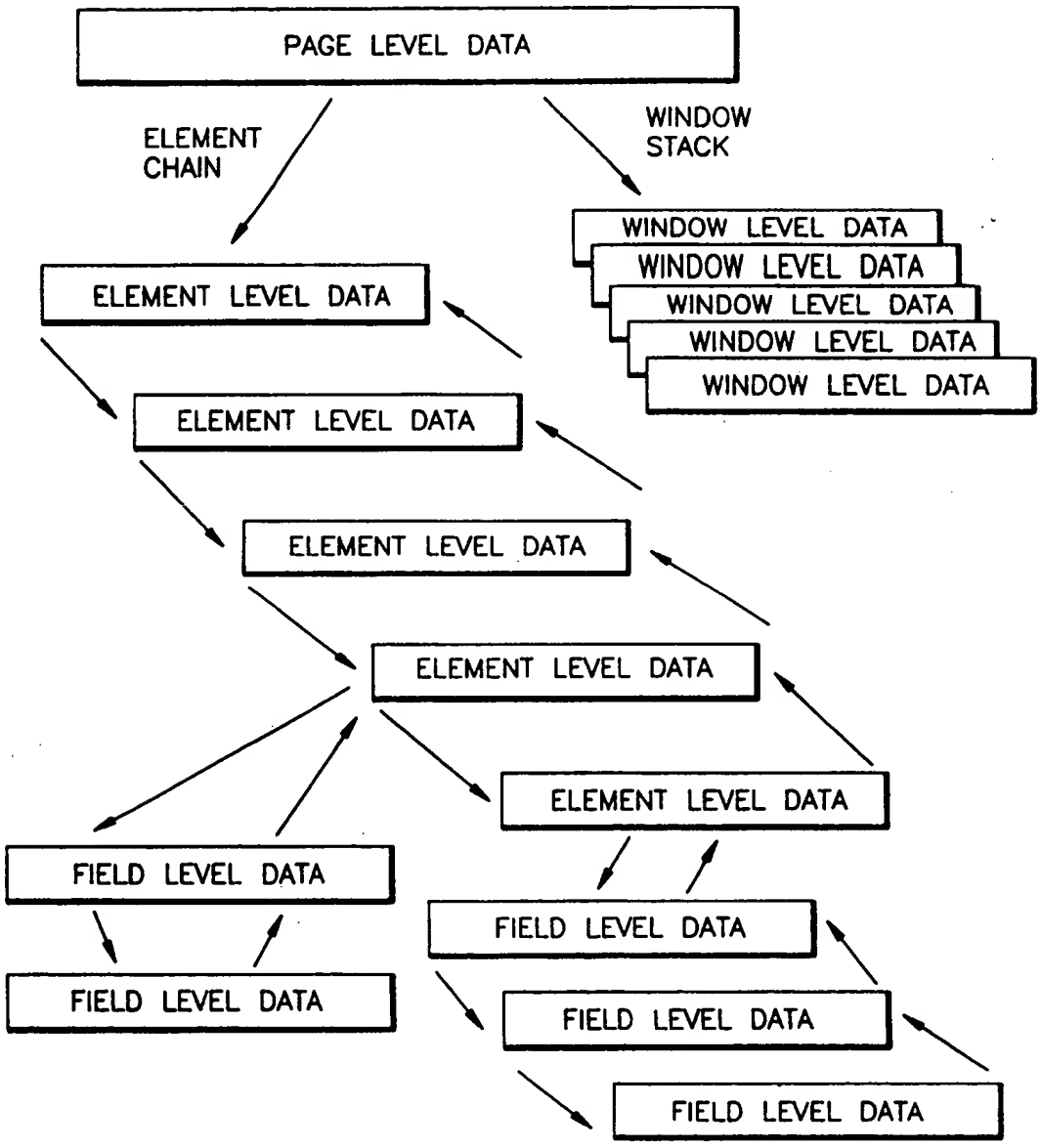
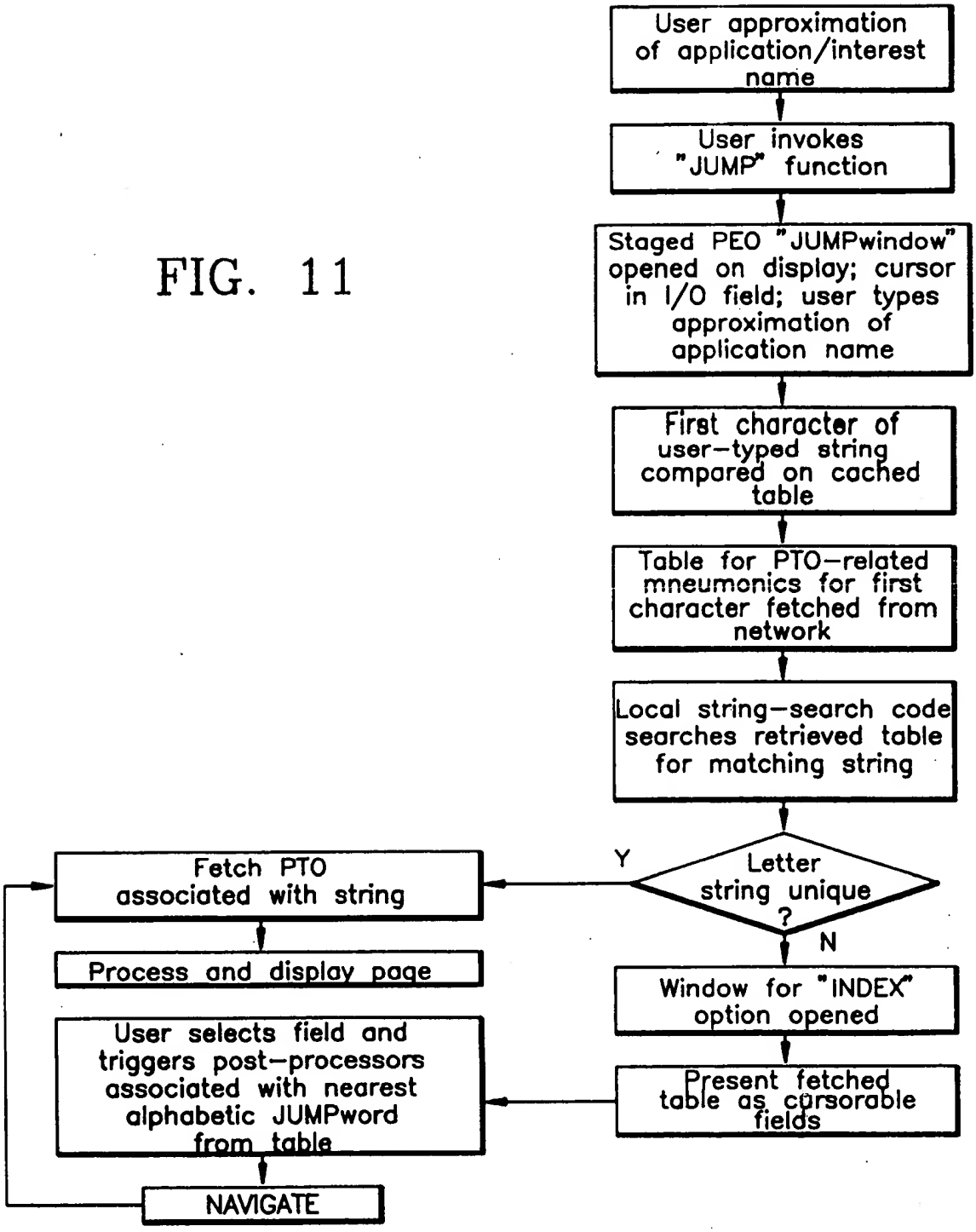


FIG. 11


User approximation of application/interest name
User invokes "JUMP" function
Staged PEO "JUMPwindow" opened on display; cursor in I/O field; user types approximation of application name
First character of user-typed string compared on cached table
Table for PTO-related mneumonics for first character fetched from network
Local string-search code searches retrieved table for matching string
Letter string unique ?
Y
N
Fetch PTO associated with string
Process and display page
User selects field and triggers post-processors associated with nearest alphabetic JUMPword from table
NAVIGATE
Window for "INDEX" option opened
Present fetched table as cursorable fields